09/889053 JC18 Rec'd PCT/PTO 1 1 JUL 2001

Case 7379M

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Matter of:

U.S. National Phase Entry

Under 35 USC § 371 from

the International Application of

KEOUGH, Thomas Woods et al

Int'l Application No. PCT/US00/00790:

Filed in the RO/US on 12 January 2000:

Entitled: METHODS AND KITS FOR SEQUENCING

POLYPEPTIDES

PRELIMINARY AMENDMENT UNDER 37 CFR § 1.112

Assistant Commissioner for Patents

Washington, D.C. 20231

Dear Sir:

Prior to Examination and computation of the fees for entering the captioned International Application into the U.S. National Phase, please preliminarily amend the above-identified application as follows and consider the following Remarks.

AMENDMENTS

IN THE CLAIMS

Please amend Claims as follows:

- 1. A method of determining the amino acid sequence of a polypeptide characterized in that it comprises:
 - (a) derivatizing the N-terminus of the polypeptide or the N-termini of one or more peptides of the polypeptide with one or more acidic moieties having pKas of less than 2, when coupled with the polypeptide or peptides, to provide one or more derivatized analytes;
 - (b) analyzing one or more derivatized analytes using a mass spectrometric technique to provide a fragmentation pattern; and
 - (c) interpreting the fragmentation pattern.
- 2. A method according to Claim 1 characterized in that the mass spectrometric technique is MALDI PSD mass spectrometry; or electrospray ionization tandem mass spectrometry.
- 3. A method according to Claim 2 characterized in that interpretation of the fragmentation pattern comprises using a commercially available software program or database.